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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 14. (currently amended) A method of fabricating an acoustic resonator
2 comprising the steps of:
3 providing a substrate; and
4 ~~forming a membrane on said substrate such that at least a~~
5 ~~portion of said membrane is suspended from contact with a substrate,~~
6 ~~including:~~
7 forming an electrode-piezoelectric stack on said substrate
8 such that a portion of said electrode-piezoelectric stack is suspended from
9 contact with said substrate by a cavity having a boundary defined by said
10 electrode-piezoelectric stack, said electrode-piezoelectric stack having a
11 negative temperature coefficient of frequency, and
12 ~~(a) forming an electrode-piezoelectric stack having a~~
13 ~~negative temperature coefficient of frequency, and~~
14 (a) forming ~~(b) forming~~ a compensator layer, comprised
15 of a ferromagnetic material, in direct contact with adjacent to said electrode-
16 piezoelectric stack, including selecting a material for said compensator layer
17 having a positive temperature coefficient of frequency.
- 1 15. (currently amended) The method of claim 14 wherein said step (a)
2 ~~step (b)~~ that includes selecting said material includes selecting a nickel-iron
3 alloy.
- 1 16. (currently amended) The method of claim 14 wherein said step (a)
2 ~~step (b)~~ includes depositing said material as approximately 35 percent nickel
3 and approximately 65 percent iron.

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1 17. (currently amended) The method of claim 14 wherein said step (a)
2 ~~step (b)~~ includes selecting a layer thickness to substantially match a
3 magnitude of temperature-induced effects on resonance by operation of said
4 electrode-piezoelectric stack with a magnitude of temperature-induced effects
5 on said resonance as a consequence of said compensator layer.

1 18. (currently amended) The method of claim 14 wherein said step of
2 forming said compensator layer membrane further includes (b) forming
3 ~~(c) forming~~ a metallic flashing layer on a side of said compensator layer
4 opposite to said electrode-piezoelectric stack.

1 19. (currently amended) The method of claim 18 further comprising using
2 fabrication alignment techniques in said steps (a) and (b) ~~steps (b) and (c)~~ to
3 prevent spurious mode generation resulting from partial coverage of said
4 ~~suspended membrane~~ electrode-piezoelectric stack by said compensator
5 layer ~~or said flashing layer~~.